In the Claims:

Please amend the claims as follows:

1. (currently amended) A method for optimizing measurement and control of the flatness of a strip of rolled material, the method comprising:

creating a set of reference strip models for known flatness fault types,

creating a set of space conversion matrices, which are known to correct the known flatness fault types by optimally qualifying actuator behavior during flatness control for the given flatness error type,

visualizing the strip,

determining ~~the~~ a relevant flatness fault type by comparing the visualization to one or more reference strip models,

fusion or morphing the ~~visual picture~~ visualization with ~~the~~ measured ~~information~~ data,

choosing an associated actuator space conversion matrix, and

optimizing the control with the space conversion matrix.

2. (previously amended) The method according to claim 1, further comprising:

making a mapping between measurement and control by associating to relevant flatness fault types a reference strip model and an actuator space conversion matrix.

3. (previously amended) The method according to claim 1, further comprising:

making an enhanced mapping between measurement and control by an actuator

correction algorithm using morphed information.

4. (currently amended) The method according to claim 1, further comprising:

mapping each reference strip model to ~~its~~ a corresponding vector space conversion matrix according to the flatness fault type.

5. (currently amended) The method according to claim 1, further comprising:

selecting a reference strip model by comparing available reference strip models with the ~~actual~~ strip.

6. (currently amended) The method according to claim ~~1~~ 5, further comprising:

enhancing the measured data by interpolating the reference model with measured flatness data.

7. (currently amended) The method according to claim 1, further comprising:

converting ~~actual~~ strip to ~~the~~ a visualization format used for the reference strip models.

8. (previously amended) The method according to claim 1, further comprising:

having visual access to the strip by an operator.

9. (currently amended) The method according to claim ~~1~~ 7, further comprising:

comparing the reference strip models with ~~actual~~ the strip visualization format.

10. (currently amended) The method according to claim ~~1,~~ 9, wherein the comparison is carried out automatically, the method further comprising:

manually tuning ~~the~~ an automatic comparison.

11. (currently amended) The method according to claim 1, further comprising:

synchronizing measured data with video samples and ~~withthe~~ with a currently performed optimization algorithm.

12. (previously amended) The method according to claim 1, further comprising:

using a morphing technique.

13. (currently amended) The method according to claim ~~1~~ 4, further comprising:

morphing from the reference model to the measured data by adding ~~the~~ a result of the mapping ~~by morphing~~ to the ~~measured information from a~~ reference model.

14. (currently amended) A device for optimizing measurement and control of the flatness of a strip of rolled material, the device comprising:

a module configured to create ~~means for creating~~ a set of reference strip models for known flatness fault types,

a module configured to create ~~means for creating~~ a set of space conversion matrices, which are known to correct the known flatness fault types by optimally qualifying actuator behavior during flatness control for the given flatness error type,

a module configured to visualize ~~means for visualizing~~ the strip,

a module configured to determine a ~~means for determining the~~ relevant flatness fault type by comparing the visualization to one or more reference strip models,

a module configured to fuse or morph the visualization ~~means for fusion or morphing the visual picture~~ with the measured ~~information~~ data,

a module configured to choose ~~means for choosing~~ an associated actuator apace conversion matrix, and

a module configured to optimize ~~means for optimizing~~ the control with the space conversion matrix.

15. (currently amended) The device according to claim 14, further comprising:

a mapping module configured to associate ~~means for accomplishing a mapping by associating~~ to relevant flatness fault types a reference strip model and an actuator space conversion matrix.

16. (currently amended) The device according to claim 14, further comprising:

a mapping module configured to make a ~~means for making the~~ mapping between measurement and control.

17. (currently amended) The device according to claim 14, further comprising:

a mapping module configured to make a ~~means for making the~~ mapping between measurement and control by an actuator correction algorithm.

18. (currently amended) The device according to claim 14, further comprising:

a mapping module configured to make a ~~means for~~ mapping each reference strip model to ~~its~~ a corresponding vector space conversion matrix according to the flatness fault type.

19. (currently amended) A computer program product, comprising:

a computer readable medium; and

computer program code means recorded on the computer readable medium and executable by a processor for carrying out the steps of

creating a set of reference strip models for known flatness fault types,

creating a set of space conversion matrices, which are known to correct the known flatness fault types by optimally qualifying actuator behavior during flatness control for the given flatness error type,

visualizing the strip,

determining ~~the~~ a relevant flatness fault type by comparing the visualization to one or more reference strip models,

fusion or morphing the ~~visual picture~~ visualization with ~~the~~ measured ~~information~~ data,

choosing an associated actuator space conversion matrix, and

optimizing the control with the space conversion matrix.

20. (cancelled)

21. (currently amended) The computer program product, according to claim 19, wherein the computer program code means is for carry out the further step of at least partially providing the computer program through a network.

22. (currently amended) The computer program product, according to claim 19, wherein the computer program code means is for carry out the further step of at least partially providing the computer program through the internet.

23. (previously presented) The method according to claim 6, wherein the measured data is enhanced by using morphing.